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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,270	03/26/2004	George Z. Radominski	200400194-1	8537

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FORT COLLINS, CO 80527-2400

EXAMINER
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FEGGINS, KRISTAL J

ART UNIT	PAPER NUMBER
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2861

DATE MAILED: 10/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/810,270

Applicant(s)

RADOMINSKI ET AL.

Examiner

K. Feggins

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_\_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-14, 16-26, 28 and 33-37 is/are allowed.
- 6) ☒ Claim(s) 1, 29 and 31 is/are rejected.
- 7) ☒ Claim(s) 2-9 and 30 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Allowable Subject Matter***

1. The indicated allowability of claims 1 & 31, is withdrawn in view of the newly discovered reference(s) to Kelly (US 5,093,602). Rejections based on the newly cited reference(s) follow.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 29 & 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Kelly (US 5,093,602).

#### **Kelly disclose the following claimed limitations:**

- \* regarding claim 1, a fluid-ejection device (Abstract, fig 1);
- \* at least one nozzle/24/ operatively associated with at least one displacement unit/membrane, 40/ configured to impart mechanical energy on fluid associated with the nozzle to cause a fluid/liquid stream, 66/ drop/72/ to be ejected from the nozzle/24/ (col 4, lines 21-55, Abstract, fig 1);
- \* a cathode ray tube/vacuum tube and electron gun assembly, 41 , 42/ configured to supply energy to selectively effect the displacement unit/40/ to control ejection of the fluid drop//72/.

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\* regarding claim 29, a fluid-ejection device (Abstract, fig 1);

\* a means/60, 54, 42/ for imparting mechanical energy on fluid contained in an associated chamber/fluid passageway 20,22, fluid entrance 28/ sufficient to cause fluid to be ejected from the chamber/20,22/;

\* a first conductor/56,conductive rings/ configured to deliver a first signal to the means/40/ for imparting mechanical energy;

\* an electron beam source/cathode, 54/ configured to deliver energy to the first conductor/56/.

\* regarding claim 31, wherein the electron beam source/cathode/ is configured to deliver the energy independent of any fluid-ejection device integrated control circuitry//60/ power source/ (col 5, lines 45-56, fig 1) .

***Allowable Subject Matter***

3. Claims 10-14, 16-26, 28, 30, 33-37 are allowed.

Claims 2-9, 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance: The primary reason for allowance of claims 10-14, 16-17 is the inclusion of the limitations of a fluid ejection device that includes a cathode ray tube having multiple conductors positioned therethrough which are independently addressable by an electron beam generated by the cathode ray tube configured to deliver electrical current proximate to individual fluid

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drop generators to cause fluid to be ejected therefrom. It is this limitation found in the claims, as it is claimed in the combination of that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

The primary reason for allowance of claims 23-26 & 28 is the inclusion of the limitations of a fluid ejection device that includes at least one cathode ray pin tube configured to modulate and steer an electron beam to energize individual displacement units sufficient to cause a fluid drop to be ejected from the associated nozzle. It is this limitation found in the claims, as it is claimed in the combination of that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

The primary reason for allowance of claims 33-37 is the inclusion of the limitations of a fluid ejection device that includes a cathode ray tube configured to impart energy upon individual conductors to cause the structure to move from the first position to the second position. It is this limitation found in the claims, as it is claimed in the combination of that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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### Communication With The USPTO

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to K. Feggins whose telephone number is 571-272-2254. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patel Vip can be reached on 571-272-2458. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

kf

 10/06  
K. FEGGINS  
PRIMARY EXAMINER